AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition ~~comprises~~ consists of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethyltriamin-pentaacetic acid (DPTA), ~~a pharmaceutically acceptable pH buffering agent~~ Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, ~~and~~ wherein the chelating agent and the antimicrobial agent have concentrations ~~of the chelating agent and the antimicrobial agent are~~ selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent to ~~synergistically~~ inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

2. (Currently Amended) The method of Claim 1, further comprising the steps of:

   (a) identifying the microbial population;

   (b) identifying an antibiotic capable of inhibiting proliferation of the microbial population;

   (c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and

   (d) selecting concentrations of the antibiotic and the chelating agent of the antimicrobial composition to ~~synergistically inhibit proliferation of the microbial population selecting concentrations of the antibiotic and the~~

~~chelating agent~~ allow synergistic cooperation between said antimicrobial agent and said chelating agent to ~~synergistically~~ inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

3-4 (Canceled)

5. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is ethylenediamenetetracetic acid (EDTA).

6. (Original) The method of Claim 1, wherein the pharmaceutically acceptable chelating agent is triethylene tetramine dihydrochloride (TRIEN).

7. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is an antibiotic selected from the group consisting of a β-lactam, an aminoglycoside, a vancomycin, a bacitracin, a macrolide, an erythromycin, a lincosamide, a chloramphenicol, a tetracycline, a gentamicin, an amphotericin, a cefazolin, a clindamycin, a mupirocin, a nalidixic acid, a sulfonamide and trimethoprim, a streptomycin, a rifampicin, a metronidazole, a quinolone, a novobiocin, a polymixin and a Gramicidin.

8. (Original) The method of Claim 7 wherein the pharmaceutically acceptable antimicrobial agent is further selected from the group consisting of a β-lactam, an aminoglycoside, a vancomycin, a chloramphenicol, an erythromycin, a tetracycline, gentamicin, nalidixic acid and a streptomycin.

9. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is oxytetracycline.

10. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is amikacin.

11. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is neomycin.

12. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is biologically active against a Gram-negative bacterial species.

13. (Original) The method of Claim 1, wherein the pharmaceutically acceptable antimicrobial agent is biologically active against a Gram-positive bacterial species.

14. (Original) The method of Claim 1, wherein the microbial population is a bacterial infection comprising at least one Gram-negative bacterial genus selected from the group consisting of *Aeromonas, Pseudomonas, Escherichia, Enterococcus, Yersinia, Vibrio, Flexibacter, Nocardia, Flavobacterium, Edwardsiella* and *Cytophagia.*

15. (Original) The method of Claim 1, wherein the microbial population is a bacterial infection comprising at least one Gram-positive bacterial genus selected from the group consisting of *Bacillus, Staphylococcus, Streptococcus, and Mycobacterium.*

16-17. (Canceled).

18. (Original) The method of Claim 1, wherein the skin injury is a burn.

19. (Original) The method of Claim 1, wherein the skin injury is an abrasion.

20. (Original) The method of Claim 1, wherein the skin injury is an ulcer.

21. (Original) The method of Claim 1, wherein the surface lesion is a lesion of the oral mucosa of a human or animal patient.

22. (Original) The method of Claim 1, wherein the antimicrobial composition is a mouthwash for inhibiting the proliferation of a microbial population of the oral cavity of a human or animal.

23. – 55. (Canceled).

56. (New). A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF-β, wherein the chelating agent and the antimicrobial agent have concentrations selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

57. (New) The method of Claim 56, further comprising the steps of:

(a) identifying the microbial population;

(b) identifying an antibiotic capable of inhibiting proliferation of the microbial population;

(c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and

(d) selecting concentrations of the antibiotic and the chelating agent to allow synergistic cooperation between said antimicrobial agent and said

chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

58. (New) A method of inhibiting the proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists of EDTA, Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF-β, wherein the chelating agent and the antimicrobial agent have concentrations selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

59. (New) The method of Claim 58, further comprising the steps of:

(a) identifying the microbial population;

(b) identifying an antibiotic capable of inhibiting proliferation of the microbial population;

(c) determining the minimal inhibitory concentration (MIC) and the fractional inhibitory concentration (FIC) values for the antibiotic and the chelating agent; and

(d) selecting concentrations of the antibiotic and the chelating agent to allow synergistic cooperation between said antimicrobial agent and said chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

60. (New) A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and

diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF-β, wherein the chelating agent and the antimicrobial agent have concentrations selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient, and wherein the antimicrobial composition is delivered to the skin injury or skin lesion as an aqueous wash.

61. (New). A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists essentially of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF-β, wherein the chelating agent and the antimicrobial agent have concentrations selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient.

62. (New). A method of inhibiting proliferation of a microbial population of a skin injury or surface lesion of a human or animal patient, the method comprising contacting the skin injury or the surface lesion with an antimicrobial composition, wherein the antimicrobial composition consists of a pharmaceutically acceptable antimicrobial agent, a pharmaceutically acceptable chelating agent selected from EDTA, TRIEN and diethylenetriamin-pentaacetic acid (DPTA), Tris (hydroxymethyl) aminomethane (TRIZMA Base), and a pharmaceutically acceptable carrier, and does not include TGF-β, wherein the chelating agent and the antimicrobial agent have concentrations selected to allow synergistic cooperation between said antimicrobial agent and said chelating agent

to inhibit proliferation of the microbial population of the skin injury or the surface lesion of the human or animal patient, and wherein the antimicrobial composition is delivered to a medical dressing.